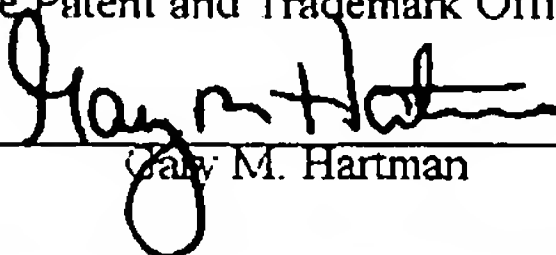


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January 29, 2007  
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U.S. Patent Application Serial No. **10/605,858**

**TECHNOLOGY CENTER 1700 PERSONNEL:**

**Attention: EXAMINER KIRSTEN JOLLEY**  
**Phone: (571) 272-1421**

THE FOLLOWING 7-PAGE DOCUMENT IS A

**RESPONSE AFTER FINAL**

including:

- ☐ Response under 37 CFR §1.116
- ☐ Notice of Appeal
- ☐ Appeal Brief under 37 CFR §41.37
- ☒ Reply Brief under 37 CFR §41.41
- ☐ Request for Continued Examination (RCE) Transmittal (two copies)
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No. :	10/605,858	Confirmation No. <b>2857</b>
Applicant :	Dong-Sil Park et al.	
Filed: :	October 31, 2003	
TC/Art Unit: :	1762	
Examiner :	Kirsten Jolley	
Docket No. :	132855	
Customer No. :	30952	

Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

**REPLY BRIEF UNDER 37 CFR §41.41**

This is a Reply Brief to the Examiner's Answer dated November 29, 2006, which was filed in response to Appellants' Appeal Brief filed August 29, 2006. As stated in Appellants' Appeal Brief and acknowledged in the Examiner's Answer, the present appeal is directed to claims 1-7, 9-26, and 28-33 of the above-identified patent application. A correct copy of the rejected claims was previously set forth in the Claim Appendix of Appellants' Appeal Brief, and therefore is not provided herewith.

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### ARGUMENT

(A) In reviewing the various issues raised by Appellants and the Examiner, Appellants believe that much of the arguments focus on whether the surface active agent taught by the sole prior art reference (U.S. Patent No. 3,900,613 to Galmiche et al. (Galmiche)) can or cannot possibly contribute any adhesive properties to Galmiche's cement. Briefly stated:

(1) The Examiner has argued that Galmiche's surface active agent cannot possibly contribute any adhesive properties to Galmiche's cement (see, for example, the paragraph bridging Pages 3 and 4 of the Answer), whereas Appellants have argued - and continue to argue here - that the record simply does not eliminate such a possibility (see, for example, the last sentence of the paragraph bridging Pages 18 and 19 of Appellants' Appeal Brief).

(2) Appellants' claim an "adhesive mixture." Because (as noted immediately above) the Examiner's argument is that Galmiche's surface active agent cannot contribute any adhesive properties to Galmiche's cement, in order to have adhesive properties as required by Appellants, the Examiner must rely on the argument that adhesive properties are attributable to "ammonium

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chloride [being] slightly soluble in alcohol" (i.e., Galmiche's halogen powder is slightly soluble in the solvent in which Galmiche's surface active agent is dissolved). In response to Appellants' argument that Galmiche does not disclose or suggest that Galmiche's cement "adheres" to any surfaces (in particular, see Appellants' Appeal Brief for arguments regarding Claims 2, 13-20, 22, and 32), the Examiner's Answer makes a new argument that Galmiche's cement must exhibit adhesive properties because

A coating would not be achieved if Galmiche's mixture did not adhere to the surface of a substrate.

Answer at Page 8, last full sentence.

That such an argument is erroneous can be readily seen from the fact that vapor phase ("out-of-pack") aluminizing (VPA) processes are well known in this art, in which the mixture that forms the diffusion coating doesn't contact the surface being coated (see Appellants' specification at the last sentence of Paragraph [0004]). Therefore, this argument fails to establish that Galmiche's cement must have adhesive properties.

The Answer further attributes adhesive characteristics to Galmiche's cement by noting that Galmiche makes reference to coating the exterior of a

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part (citing Galmiche at Column 4, Lines 644-66, and Column 6, Lines 3-6),  
and that

such treatment of external surfaces would require that the  
mixture adheres to the external surfaces/outer walls since  
the cement is taught to remain in place after  
application/vibration is stopped.

Answer at sentence bridging Pages 8 and 9.

However, a careful reading of the passages preceding the cited passages  
evidences that there is nothing requiring Galmiche's cement to be adhesive.  
For example, Galmiche refers to "the medium in which the parts to be treated  
are placed can be very different from the cement of the invention" (Column 4,  
Lines 60-62, emphasis added). From this passage, it is evident that adhesion  
is not a required property of Galmiche's cement.

In view of the above, Appellants believe that if one is to accept the  
Examiner's position that Galmiche's surface active agent does not contribute  
any adhesive properties, it is equally correct that Galmiche's cement does not  
exhibit any adhesive properties.

(B) Finally, Appellants' claims require an "activator dissolved in a solvent"

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(Claim 1), "dissolving at least one ammonium halide activator in water to form an ammonium halide-containing solution" (Claim 13), and "dissolving an activator in a solvent to form an activator solution" (Claim 21). To properly interpret these limitations, Appellants believe that accurate definitions for "dissolve" and "solution" must be used.

Dissolve: 1. to convert from a solid to a liquid state by merging with a liquid; to make a solution of; as, to dissolve sugar in water.

*Webster's New Twentieth Century Dictionary, Unabridged*  
(Second Edition).

Solution: A uniformly dispersed mixture at the molecular or ionic level, of one or more substances (the solute) in one or more other substances (the solvent).

*Hawley's Condensed Chemical Dictionary*, Eleventh Edition,  
(1987).


Therefore, "dissolved," "dissolving," and "solution" cannot be arbitrarily interpreted to encompass Galmiche's cement, in which the Examiner has conceded that Galmiche's ammonium chloride is only "slightly soluble" (Office Action of February 2, 2006).

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**CLOSING**

Appellants again respectfully request that this Honorable Board of Appeals reverse the Examiner's rejections of the claims under 35 USC §§102 and 103.

Respectfully submitted,

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